QC

NAME OF WORK:- RESTORATION OF ROAD CUT PORTION DONE BY BWSSB, BESCOM, GAIL,KPTCL AND OTHER AGENCIES "ON BACK TO BACK ROAD RESTORATION BASIS" IN BRUHAT BENGALURU MAHANAGARA PALIKE LIMITS IN YELAHANKA ZONE.

(Restoration of UGD Road cut Portion Done by BWSSB on back to back road restoration basis at Dynasty Layout, Anjanadri Layout, Amarjyothi Layout, Maruthi saimilal in Ward no 6 Byatarayanapura sub division)

(Quality Control Reports)

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3

Format No: CP/TF/01

TEST REPORT OF FINE AGGREGATE

Lab ID : **CP-2019-07-01-04** **Date: 08-03-19**

Project Name : Restoration of Road Cut Portion done By BWSSB,BESCOM,GAIL,KPTCL and other Agencies "On Back to Back Road Restoration Basis" in Bruhat Bengaluru Mahanagara Palike Limits in Yelahanka Zone.

Name of Work : Restoration of UGD Road cut Portion Done by BWSSB on back to back road restoration basis at Dynasty Layout, Anjanadri Layout, Amarjyothi Layout, Maruthi saimilal in Ward no 6 Byatarayanapura sub division

Agency : R Satheesh (Sathya Constructions), #600, Down Bazaar Road, Yelahanka, Bangalore-560064

Customer's Reference : EE/TEC/WO/12/2018-19

Date of Receipt : 06-03-19

Sample Type : Fine Aggregate(M Sand)

Reference to BIS codes : IS 383 : 2016 (Specification for Coarse and fine Aggregates)
IS: 2386 :1963(Part - 1, 3) RA2012
IS 2386 Part 1: Particle Size and Shape
IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption

Date of test : 06-03-19

Total weight taken : 1000 grams

Sl.no	Sieve Size	Weight Retained (gms)	Cumulative Weight Retained (gms)	% Cumulative Weight Retained	% Passing	Requirement as per IS 383:2016			
						Grading Zone I	Grading Zone II	Grading Zone III	Grading Zone IV
1	10 mm	0	0	0.0	100.0	100	100	100	100
2	4.75 mm	26	26	2.6	97.4	90-100	90-100	90-100	95-100
3	2.36 mm	48	74	7.4	92.6	60-95	75-100	85-100	95-100
4	1.18 mm	227	301	30.1	69.9	30-70	55-90	75-100	90-100
5	600 micron	200	501	50.1	49.9	15-34	35-59	60-79	80-100
6	300 micron	202	703	70.3	29.7	5-20	8-30	12-40	15-50
7	150 micron	199	902	90.2	9.8	0-10	0-10	0-10	0-15
8	Pan	98	1000	100.0	0.0	---	---	---	---

Result :The tested Sample Conforms to Grading Zone II

CIVIL PRO Sig..... Date..... BANGALORE

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL |
GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

TEST REPORT OF FINE AGGREGATE

Lab ID : CP-2019-07-01-04

Date: 08-03-19

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS 383:2016
1	Water Absorption(%)	1.53	–
2	Specific Gravity	2.56	–
3	Material finer than 75 micron(%)	6.8	Uncrushed fine Aggregate Max 3%, Crushed Fine aggregate Max 15%, Mixed Fine aggregate Max 12%, Manufactured Fine aggregate Max 10%

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL |
GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

TEST RESULTS OF GRADATION FOR WMM

Lab ID : **CP-RW-2019-07-01-04** **Date: 11-03-19**

Project Name : Restoration of Road Cut Portion done By BWSSB,BESCOM,GAIL,KPTCL and other Agencies "On Back to Back Road Restoration Basis" in Bruhat Bengaluru Mahanagara Palike Limits in Yelahanka Zone.

Name of Work : Restoration of UGD Road cut Portion Done by BWSSB on back to back road restoration basis at Dynasty Layout, Anjanadri Layout, Amarjyothi Layout, Maruthi saimilal in Ward no 6 Byatarayanapura sub division

Agency : R Satheesh (Sathya Constructions), #600, Down Bazaar Road,Yelahanka,Bangalore-560064

Customer Reference : EE/TEC/WO/12/2018-19

Date of Receipt : 09-03-19

Type of Mix : WMM (Wet Mix Macadam)

Date of test : 09-03-19

Oven Dry Weight : 11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	314	314	2.9	97.1	95-100
22.4	2249	2563	23.3	76.7	60-80
11.2	2168	4731	43.0	57.0	40-60
4.75	2248	6979	63.4	36.6	25-40
2.36	1616	8595	78.1	21.9	15-30
0.6	613	9208	83.7	16.3	8-22
0.075	1317	10525	95.7	4.3	0-5

CIVIL PRO BANGALORE Sig. Date.

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

TEST REPORT OF AGGEGRATE IMPACT VALUE
IS: 2386 Part IV

Lab ID : **CP-RW-2019-07-01-04** **Date: 11-03-19**

Project Name : Restoration of Road Cut Portion done By BWSSB,BESCOM,GAIL,KPTCL and other Agencies "On Back to Back Road Restoration Basis" in Bruhat Bengaluru Mahanagara Palike Limits in Yelahanka Zone.

Name of Work : Restoration of UGD Road cut Portion Done by BWSSB on back to back road restoration basis at Dynasty Layout, Anjanadri Layout, Amarjyothi Layout, Maruthi saimilal in Ward no 6 Byatarayanapura sub division

Agency : R Satheesh (Sathya Constructions), #600, Down Bazaar Road,Yelahanka,Bangalore-560064

Customer Reference : EE/TEC/WO/12/2018-19

Date of Receipt : 09-03-19

Type of Mix : Coarse Aggregate for WMM (Wet Mix Macadam)

Date of test : 09-03-19

Sl.No	Particulars of observations	Index	TEST 1	TEST 2
1	Total weight of the surface dry sample sample (passing 12.5 mm and retained on 10mm sieve)	A	300.4	300.4
2	Weight of fraction passing 2.36mm sieve After giving 15 blows	B	73.8	74.7
3	weight of fraction retained 2.36mm sieve After giving 15 blows	C	225.9	225.2
4	Total weight of (B+C) is less than the initial weight (Weight A) by more than one gram the result shall be discarded and a fresh test made.	A-(B+C)	0.7	0.5
5	Aggregate impact value	(B/A)*100	24.6	24.9
6	Aggregate impact value (Mean of two tests)	Pecentage	24.7	

CIVIL PRO Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

DETERMINATION OF FLAKINESS INDEX AND ELONGATION INDEX OF COARSE AGGREGATE(IS 2386 (Part 1) 1963 (RA 2007)

Lab ID	:	**CP-RW-2019-07-01-04**	**Date: 11-03-19**
Project Name	:	Restoration of Road Cut Portion done By BWSSB,BESCOM,GAIL,KPTCL and other Agencies "On Back to Back Road Restoration Basis" in Bruhat Bengaluru Mahanagara Palike Limits in Yelahanka Zone.	
Name of Work	:	Restoration of UGD Road cut Portion Done by BWSSB on back to back road restoration basis at Dynasty Layout, Anjanadri Layout, Amarjyothi Layout, Maruthi saimilal in Ward no 6 Byatarayanapura sub division	
Agency	:	R Satheesh (Sathya Constructions), #600, Down Bazaar Road,Yelahanka,Bangalore-560064	
Customer Reference	:	EE/TEC/WO/12/2018-19	
Date of Receipt	:	09-03-19	
Type of Mix	:	Coarse Aggregate for WMM (Wet Mix Macadam)	
Date of test	:	09-03-19	

Result:

Index	Percentage of Flakiness and Elongation Index	Secified limits as per MORTH specification table 400-12
Flakiness Index	12.2%	Combined Flakiness & Elongation Index for WMM is Maximum 35%
Elongation Index	12.2%	
Combined Flakiness and Elongation Index for WMM	24.4%	

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

Format No: CP/TF/01

TEST REPORT ON BITUMEN

Lab ID : **CP-RW-2019-07-01-04** **Date: 18-03-19**

Project Name : Restoration of Road Cut Portion done By BWSSB,BESCOM,GAIL,KPTCL and other Agencies "On Back to Back Road Restoration Basis" in Bruhat Bengaluru Mahanagara Palike Limits in Yelahanka Zone.

Name of Work : Restoration of UGD Road cut Portion Done by BWSSB on back to back road restoration basis at Dynasty Layout, Anjanadri Layout, Amarjyothi Layout, Maruthi saimilal in Ward no 6 Byatarayanapura sub division

Agency : R Satheesh (Sathya Constructions), #600, Down Bazaar Road,Yelahanka,Bangalore-560064

Customer's Reference : EE/TEC/WO/12/2018-19

Date of Receipt : 16-03-19

Sample Type : Bitumen

Reference to BIS codes : IS: 1201-1220(1978) (Reaffirmed-2004)

Date of test : 16-03-19

Test Results

Sl.no	Name of Test	Result	Requirements as per IS:73-2013
1	Penetration at 25°C , in 1/10th mm	62	60 to 70
2	Softening Point, °C	51.2	Min. 40°C
3	Ductility, cm	98	Min. 75cm
4	Flash point, °C	242	Min. 220°C
	Fire point, °C	276	

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1

****End of Report****

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3

TEST RESULTS OF GRADATION FOR OPEN GRADED PREMIX CARPET

Lab ID	:	**CP-RW-2019-07-01-04** **Date: 23-03-19**
Project Name	:	Restoration of Road Cut Portion done By BWSSB,BESCOM,GAIL,KPTCL and other Agencies "On Back to Back Road Restoration Basis" in Bruhat Bengaluru Mahanagara Palike Limits in Yelahanka Zone.
Name of Work	:	Restoration of UGD Road cut Portion Done by BWSSB on back to back road restoration basis at Dynasty Layout, Anjanadri Layout, Amarjyothi Layout, Maruthi saimilal in Ward no 6 Byatarayanapura sub division
Agency	:	R Satheesh (Sathya Constructions), #600, Down Bazaar Road,Yelahanka,Bangalore-560064
Customer Reference	:	EE/TEC/WO/12/2018-19
Date of Receipt	:	21-03-19
Type of Mix	:	Open Graded Premix Carpet
Date of test	:	21-03-19
Weight of Sample	:	5000 Grams

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-15(grading-2)
22.4	0	0	0.0	100.0	100
13.2	0	0	0.0	100.0	100
9.5	417	417	8.3	91.7	90-100
4.75	2176	2593	51.9	48.1	35-51
2.36	1029	3622	72.4	27.6	24-39
1.18	518	4140	82.8	17.2	15-30
0.3	374	4514	90.3	9.7	9-19
0.075	159	4673	93.5	6.5	3-8
PAN	327	5000	100.0	0.0	0

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

PHYSICAL REQUIREMENTS FOR COARSE AGGREGATE FOR PREMIX CARPET

Lab ID : **CP-RW-2019-07-01-04** **Date: 26-03-19**

Project Name : Restoration of Road Cut Portion done By BWSSB,BESCOM,GAIL,KPTCL and other Agencies "On Back to Back Road Restoration Basis" in Bruhat Bengaluru Mahanagara Palike Limits in Yelahanka Zone.

Name of Work : Restoration of UGD Road cut Portion Done by BWSSB on back to back road restoration basis at Dynasty Layout, Anjanadri Layout, Amarjyothi Layout, Maruthi saimilal in Ward no 6 Byatarayanapura sub division

Agency : R Satheesh (Sathya Constructions), #600, Down Bazaar Road,Yelahanka,Bangalore-560064

Customer Reference : EE/TEC/WO/12/2018-19

Date of Receipt : 21-03-19

Type of Mix : Open Graded Premix Carpet

Date of test : 21-03-19

Physical Requirements fo Coarse Aggregate for Premix Carpet

Property	Test	Result	Specification	Method of Test
Partical Shape	Flakiness Index	11.5	Combined Flakiness & Elongation Index for DBM is Maximum 35%	IS:2386 Part I
	Elongation Index	9.1		
Strength	Aggregate Impact Value	21.4	Maximum 30%	IS:2386 Part IV
Specific gravity	Specific gravity	2.55	Maximum 2.7	IS:2386 Part III
Water Absorption	Water Absorption	0.33	Maximum 2%	IS:2386 Part III

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quallity Manager

CIVIL PRO Sig..... Date..... BANGALORE

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

TEST REPORT OF AGGEGRATE STRIPPING VALUE OF ROAD AGGRGATE (IS:6241)

Lab ID	:	**CP-RW-2019-07-01-04** **Date: 26-03-19**
Project Name	:	Restoration of Road Cut Portion done By BWSSB,BESCOM,GAIL,KPTCL and other Agencies "On Back to Back Road Restoration Basis" in Bruhat Bengaluru Mahanagara Palike Limits in Yelahanka Zone.
Name of Work	:	Restoration of UGD Road cut Portion Done by BWSSB on back to back road restoration basis at Dynasty Layout, Anjanadri Layout, Amarjyothi Layout, Maruthi saimilal in Ward no 6 Byatarayanapura sub division
Agency	:	R Satheesh (Sathya Constructions), #600, Down Bazaar Road,Yelahanka,Bangalore-560064
Customer Reference	:	EE/TEC/WO/12/2018-19
Date of Receipt	:	21-03-19
Type of Mix	:	Open Graded Premix Carpet
Date of test	:	21-03-19

Type of Binder	:	60/70
% of Binder Used	:	5.0%
Weight of Aggregate	:	200.0 gm
Weight of Binder	:	10.0 gm
Temperature of water bath	:	40°C

No of test	Retained Stripping Percentage	Stripping Percentage	Average Retained Stripping Percentage	Secified limits as per MORTH specification table 500-8
1	98.5	1.5	98.8	Minimum Retained Coating 95%
2	99.5	0.5		
3	98.5	1.5		

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
****End of Report****

TESTS RESULTS ON STABILITY OF MIX

Lab ID : **CP-RW-2019-07-01-04** **Date: 26-03-19**

Project Name : Restoration of Road Cut Portion done By BWSSB,BESCOM,GAIL,KPTCL and other Agencies "On Back to Back Road Restoration Basis" in Bruhat Bengaluru Mahanagara Palike Limits in Yelahanka Zone.

Name of Work : Restoration of UGD Road cut Portion Done by BWSSB on back to back road restoration basis at Dynasty Layout, Anjanadri Layout, Amarjyothi Layout, Maruthi saimilal in Ward no 6 Byatarayanapura sub division

Agency : R Satheesh (Sathya Constructions), #600, Down Bazaar Road,Yelahanka,Bangalore-560064

Customer Reference : EE/TEC/WO/12/2018-19

Date of Receipt : 21-03-19

Type of Mix : Open Graded Premix Carpet

Date of test : 21-03-19

The results of the tests conducted on the Premix Carpet sample are as follow

Sl.No	Particulars of observations	TEST 1	TEST 2	Secified limits as per MORTH specification table 500-16
1	Marshal Stability at 60°C, KN	10.56	10.58	8.2KN(min)
2	Marshal flow at 60°C, mm	3.24	3.25	2-4
3	Percent air Voids	4.52	4.28	3-5
4	Percent Voids in mineral Aggregate(VMA %)	13.84	13.6	13-15
5	Percent Voids filled with Bitumen(VFB %)	70.2	69.3	65-75
6	Density, g/cc	2.24	2.22	–

CIVIL PRO Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report